



BUILDING RESEARCH INSTITUTE (NISI) Ltd.

NOTIFIED BODY FOR CONSTRUCTION PRODUCTS

Identification number NB 2032 of the Register of EC

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**CERTIFICATE
OF CONFORMITY OF THE FACTORY PRODUCTION CONTROL
No 2032-CPR-11.5A**

In compliance with *Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011* (the Construction Products Regulation or CPR), this certificate applies to the construction

**PRODUCTS FOR THE PROTECTION AND REPAIR OF
CONCRETE STRUCTURES**

used to implement road construction, underground construction and hydraulic engineering depending on functions given in the Annex 1, with function-related characteristics according to producer's stated values given in the Annex 2 to the Certificate,

produced by

ADING A.D.

1060 Skopje, F.Y.R.Macedonia, 11 Novoselski pat (1409 str.)

in the factory of

ADING A.D.

1060 Skopje, F.Y.R.Macedonia, 11 Novoselski pat (1409 str.)

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standards

EN 1504-2:2004, EN 1504-3:2005, EN 1504-4:2004

under system 2+ for the performances set out in this certificate are applied and that

the factory production control fulfils all the prescribed requirements for these performances.

This certificate is an extension of the certificate No 2032-CPR-11.5 that was first issued on 31.05.2011 and will remain valid until 15.12.2017 provided that the test methods and/or factory production control requirements included in the harmonised standards, used to assess the performances of the declared essential characteristics, do not change, and the construction product, and the manufacturing conditions in the plant are not modified significantly.

General Manager of NISI Ltd
Prof. Dr. Eng. Rumen Guglev

SOFIA, 28.04.2016



There are two Annexes of this Certificate that are integrant.



PRODUCTS FOR THE PROTECTION AND REPAIR OF CONCRETE STRUCTURES

1. Description and intended use of products within the scope of the certificate

Table 1

Trade name	Standard	Intended use
HIDROMAL FLEKS	EN 1504-2:2004 Table ZA.1e	For surface protection of concrete and moisture control
ANTI-KOROZIN-BB	EN 1504-2:2004 Table ZA.1d	Ingress protection
	EN 1504-2:2004 Table ZA.1e	For surface protection of concrete, moisture control and increasing resistivity
ADINGPOKS 1B EKO	EN 1504-2:2004 Table ZA.1f	Physical resistance
EKSMAL 4	EN 1504-3:2005 Table ZA.1	For repair of concrete structures applying the grout by hand, pour concrete in additional, increasing cover to reinforcement and strengthen of constructional elements.
REPARATUR MALTER F2		
ADINGPOKS N	EN 1504-4:2004 Table ZA.1b	Structural bonding of bonded mortar or concrete to existing concrete structures for strengthening and repair purposes

General Manager of NISI Ltd

Pfor. Dr. Eng. Rumen Guglev





PRODUCTS FOR THE PROTECTION AND REPAIR OF CONCRETE STRUCTURES

2. Essential characteristics in the scope of the certificate

Table 2

Essential characteristic	Test method	Unit of measure	Product / Performance					
			EN 1504-2:2004		EN 1504-3:2005		EN 1504-4:2004	
			HIDROMAL FLEKS	ANTIKOROZIN BB	ADINGPOKS 1B EKO	EKSMAL 4	REPARATUR MALTER F2	ADINGPOKS N
Compressive strength	EN 12190	N/mm ²	-	-	-	клас R4 ≥ 45	клас R3 ≥ 25	≥ 30
Water-soluble chloride	EN 1015-17	%	-	-	-	≥ 0,05	≥ 0,05	-
Bond strength by pull-off / adhesion	EN 1542	N/mm ²	No load movement ≥ 0,8 (0,5)*	Load movement ≥ 1,5 (1,0)	Load movement ≥ 2,0(1,5)	Load movement ≥ 2,0	Load movement ≥ 1,5	-
Shear strength	EN 12636	-	-	-	-	-	-	Fracture in the concrete
Unrestrained shrinkage and expansion	EN 12615	N/mm ²	-	-	-	-	-	≥ 6
Shrinkage	EN 12617-4	N/mm ² %	-	-	-	-	Bond strength after shrinkage and expansion ≥ 2,0	≥ 1,5
Carbonation resistance	EN 13295	mm	-	-	-	Pass d _k ≤ control concrete (MC 0,45)	Pass d _k ≤ control concrete (MC 0,45)	-
Elasticity Modulus in compression	EN 13412	GPa N/mm ²	-	-	-	≥ 20	≥ 15	-
Thermal compatibility (Part 1)	EN 13687-1	N/mm ²	-	No load movement ≥ 1,0 (0,7)*	-	Load movement ≥ 2,0	Load movement ≥ 1,5	≥ 2000
Water absorption	EN 13057 EN 1062-3	kg/(m ² h ^{0,5})	< 0,1	< 0,1	< 0,1	≤ 0,5	≤ 0,5	-

* The value in brackets is the lowest accepted value of any reading.



Continued table 2

Essential characteristic	Test method	Unit of measurement	Product / Performance					
			EN 1504-2:2004		EN 1504-3:2005		EN 1504-4: 2004	
			HIDROMAL FLEKS	ANTI-KOROZIN BB	ADINGPOKS 1B EKO	EKSMAL 4	REPARATUR MALTER F2	ADINGPOKS N
Water vapour permeability	EN ISO 7783	m	Class I $s_D < 5$	Class I $s_D < 5$	-	-	-	-
Permeability to CO ₂	EN 1062-6	m	-	$s_D > 50$	-	-	-	-
Abrasion resistance	EN ISO 5470-1	mg	-	-	< 3000	-	-	-
Impact resistance	EN ISO 6272	N.m	-	-	Class II ≥ 10	-	-	-
Sensibility to water	EN 12636	-	-	-	-	-	-	Fracture in the concrete
Open time	EN 12189	min	-	-	-	-	-	≥ 80
Workable life	EN ISO 9514	min	-	-	-	-	-	120±20 at (23±2)°C
Glass transition temperature	EN 12614	°C	-	-	-	-	-	≥ 40
Coefficient of thermal expansion	EN 1770	1/°C	-	-	-	-	-	$\leq 100.10^{-6}$
Durability (thermal and moisture)	EN 13733	-	-	-	-	-	-	Pass



General Manager of NISI Ltd
 Pfor. Dr. Eng. Rumèn Guglev